

# Muti-Purposes Tall Fence

Author: Suwat Phruksawan

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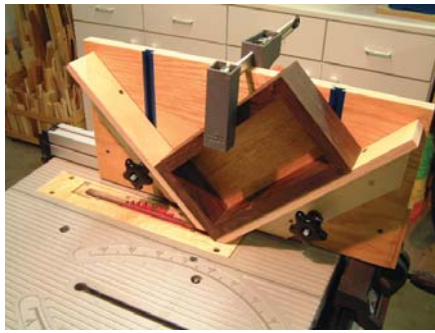
It all started when I needed to build a tall fence to cut miter splines slots on my recent [humidor box](#) project. During the design, I figured that I would need another tall fence to cut a raised panel for the bottom piece. And I knew that shortly after, I was going to need yet another tall fence to resaw a couple of 4/4 Padouk & Spanish Cedar stocks into 3/16"-thick pieces for the box liners.

Since I was too lazy to build dedicated jigs for each tasks, I decided to combine them all into one. And what came out is something that looks like this:



I called it the "Multi-Purposes Tall Fence". This jig lets me use my table saw to do many things like...

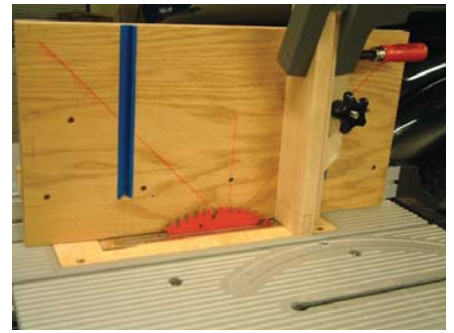
- Cutting slots for miter splines
- Cutting simple raised panels for large & small stocks
- Repeatedly ripping thin strips from stocks with various heights
- Resawing
- Tenonning...and..
- Any cutting operations that need vertical support..



Cutting Miter Spline Slots



Cutting Raised Panel



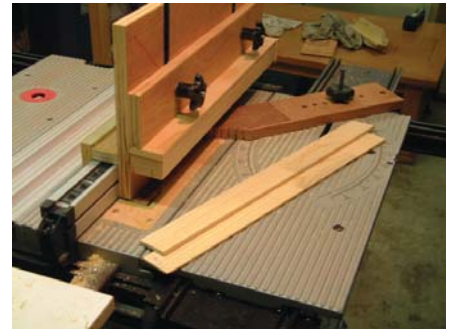
Cutting Tenons



Ripping Thin Strips



Resawing

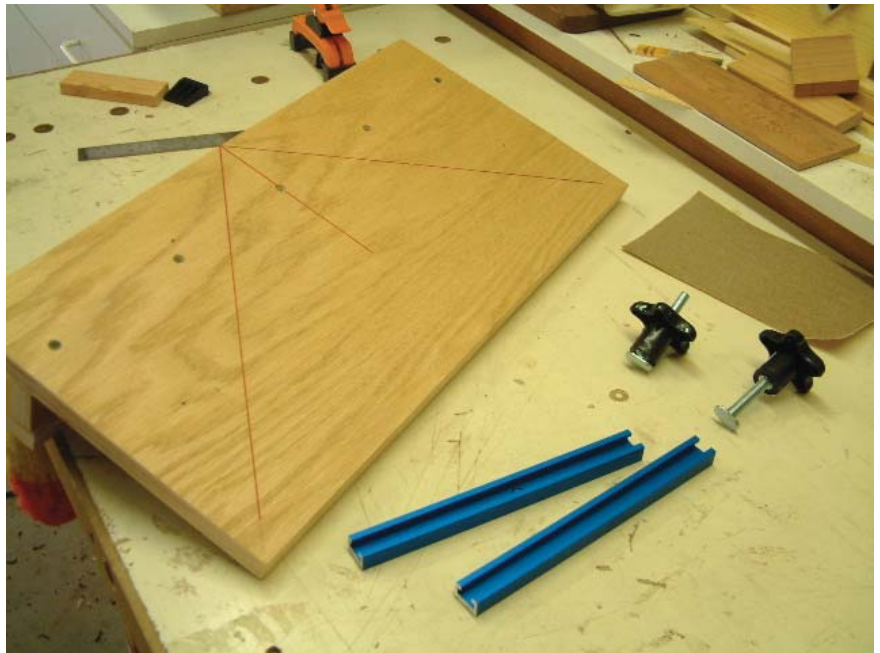
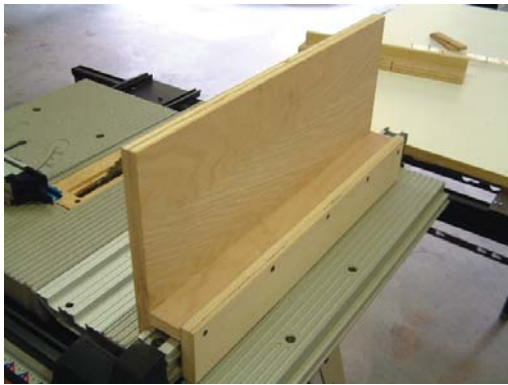


Resawing

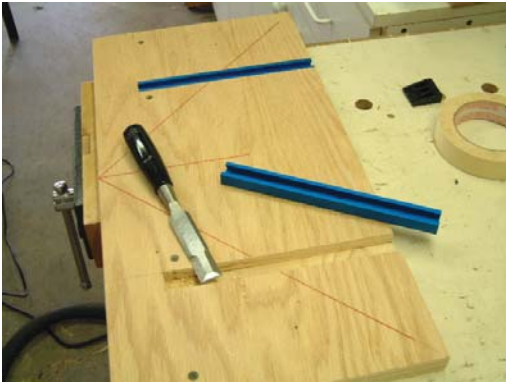
## Construction

### Building Tall Fence & Install T-Tracks

Start by creating a tall fence that fit perfectly on your rip fence. I used 3/4" thick plywood left over from previous project to build this fence because it's more stable and more durable.

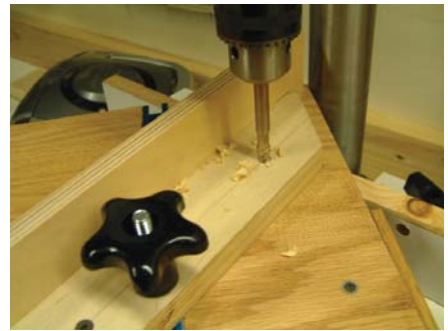


Once done, layout the 45° reference lines on the face of the fence (I used permanent marker so they won't fade out over time). This will be used as guides for the miter spline fence. Then cut two short pieces (about 8" long) of T-Track and install them on the face of the tall fence about one foot apart.



## Building and Using Miter Spline Fences

Next, build the fences for miter spline cutting. Each fence consist of two plywood pieces--the base and the sacrificial board. I used screws only (no glue) to attach the sacrificial piece on the base so that I can be easily replaced after it is worn out. Mark and drill the holes for T-Track knobs. I drilled these holes a bit oversize so that it will be easier to slide the fences in and out of the T-Tracks during use. Once that's done, install the fences on the tracks and align them to the 45 ° guidelines previously marked. Secure them with clamps and drill the holes through the miter spline fences and half way into the face of the tall fence. Cut two short pieces of dowels and install them on the miter spline fences with glue.



To cut miter spline slots on a box, install the fences as shown in the pictures below. The dowel will help secure the fences in the perfect 45° angle automatically.



Install the fences on the T-Track



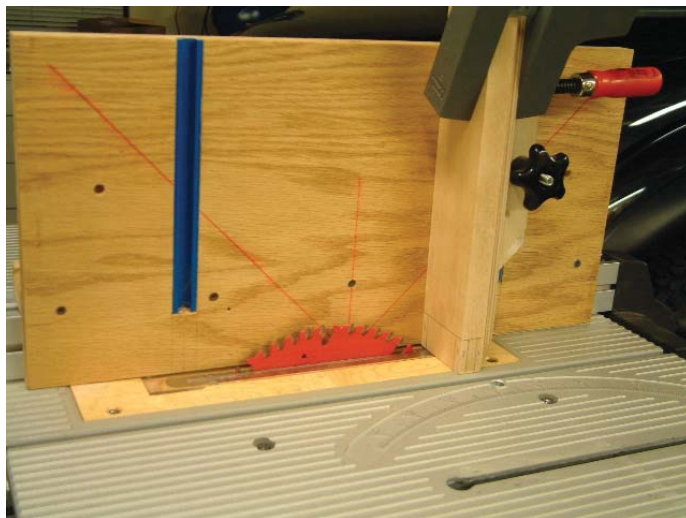
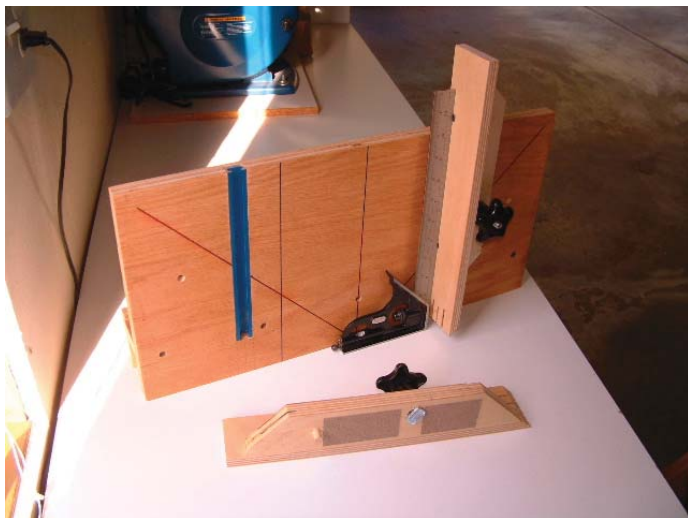
Insert the dowel into the predrill hole



Adjust the fence and start cutting

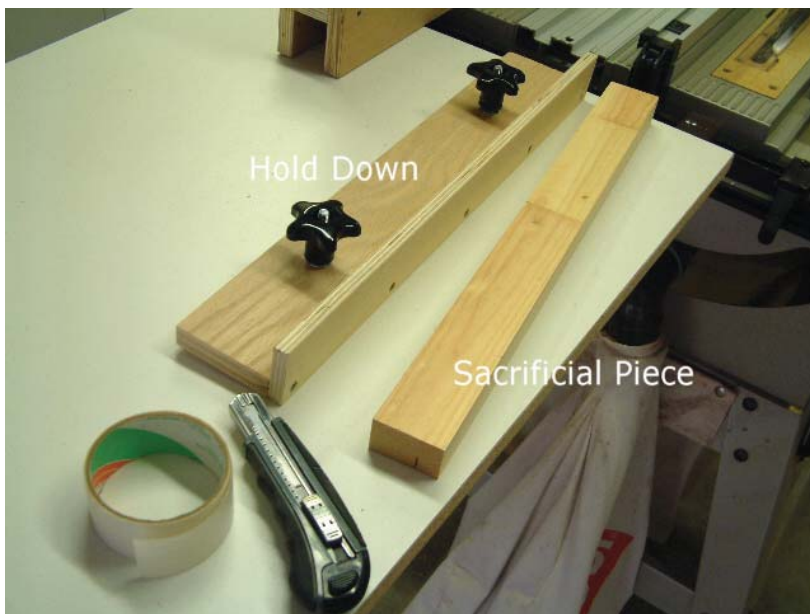
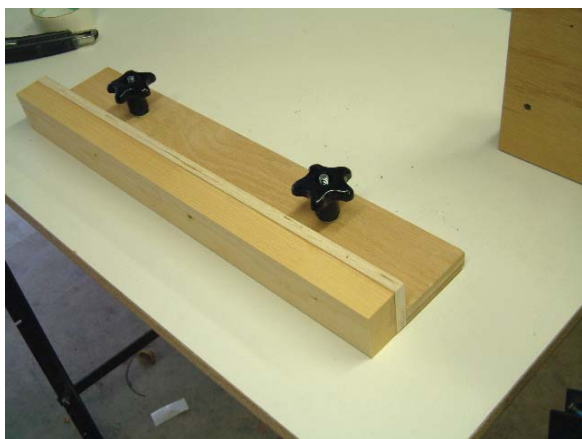
## Cutting Tenons

The same fences used for cutting the miter spline slots can be used for cutting tenons as well. Simply use one fence and adjust it to 90° angle and tighten the knob. (You may need to slide the fence up the track a bit so the dowel on the back of the fence clears the top). Note that I glued sandpapers at the back of the fences so that they won't move during use.



### Building and Using Hold-down For Resawing and Ripping Thin Strips

Create a hold down for resawing and thin strip ripping as shown below. Drill two holes for the T-track knobs. Cut a 1-1/2" thick sacrificial piece with the same width and length as the hold down and attach it to the bottom of the hold down with carpet tape or hot-melt glue. (Do not use nails or screws--this is to avoid the saw blades cutting into metals by accident.)



Finally, finish building the hold down by installing the "heel" made from small piece of scrap wood (see picture on the left). Make the bottom of the heel about 1/4" lower than the bottom of the sacrificial piece.



To cut thin strips, install the hold down on the T-Track and set the height to the same height of the stock. Set the fence to the desired thickness and start ripping. You can cut as many strips as you want without the need to reset the fence!

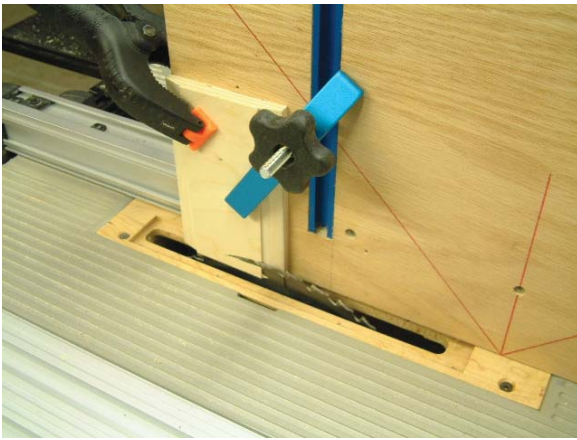


For resawing operations, the steps to set up the jig are the same as the steps for ripping thin strip. But you may need to flip the boards and rip a couple of times if the saw blade cannot be raised high enough. Also, because of the greater height, it is a good idea to use featherboard in this case.



## Cutting Raised Panel

Larger stocks can be clamped directly to the tall fence for cutting the raised panel. For the smaller stocks like the ones I used on my humidior boxes, however, it is easier to use the hold downs on the T-Track as shown in the pictures below. This is because most clamps cannot reach far enough to secure the piece while the hold downs can.



To further prevent slippage during the cut, you can glue a piece of sandpaper temporarily on the face of the fence (not shown here.) The spray adhesive works pretty well in this case since it is cleaned up easily after use.